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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,550	03/07/2001	Harpreet Singh Sawhney	SAR 13825	4094

26581 7590 02/19/2004  
RATNERPRESTIA  
P.O. BOX 980  
VALLEY FORGE, PA 19482-0980

EXAMINER
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CHAWAN, SHEELA C

ART UNIT	PAPER NUMBER
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2625

DATE MAILED: 02/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/800,550

Applicant(s)

SAWHNEY ET AL.

Examiner

Sheela C Chawan

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2001.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-42 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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**DETAILED ACTION**

**Election/Restriction**

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1- 11, 15-26, 41 and 42 are drawn to a method for accurately estimating a pose of a camera with a scene using a three dimensional model of the scene, classified in class 382, sub class 103.

II. Claims 12 - 14, are drawn to a method for accurately estimating a pose of a camera with a scene using a three dimensional model of the scene, performing a pyramid decomposition of an image to generate a set of pyramid levels of the image, classified in class 382 sub class 154.

III. Claims 27- 36, are drawn to a method for creating a hybrid three dimensional model of a scene and polyhedral model including at least one polygonal surface, classified in class 345, sub class 421.

IV. Claims 37- 40, are drawn to a method for creating a dynamic sequence of virtual images of a scene using a dynamically updated three dimension model of the scene, class 345, sub class 723.

2. The inventions are distinct, each from the other because of the following reasons: Inventions I, II, III, and IV are related as subcombination discloses as usable together in a single combination. The subcombination are distinct from each other if they are shown to be separately usable . In the instant case, invention group I has separate utility such as estimating a pose of a camera with a scene using a three dimensional model of the scene . Invention group II has separate utility such , performing a pyramid

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decomposition of an image to generate a set of pyramid levels of the image . Invention group III has separate utility such as creating a hybrid three dimensional model of a scene and polyhedral model including at least one polygonal surface . Invention group IV has separate utility such as creating a dynamic sequence of virtual images of a scene using a dynamically updated three dimension model of the scene.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their classification and recognized divergent subject matter, restriction for examination purposes as indicated is proper.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventor ship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application . Any amendment of inventor ship must be accompanied by a diligently-filed petition under 37 CRF 1.48(b) and by the fee required under 37 CRF 1.17(h).

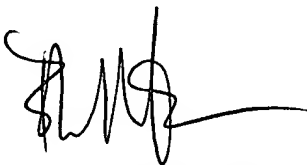
***Contact Information***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela C Chawan whose telephone number is 703-305- 4876. The examiner can normally be reached on Monday through Thursday 7.30 a.m. to 6.00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached on (703) 308 - 5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3800.

*see*  
Sheela Chawan  
Patent Examiner  
Group Art Unit 2625  
Feb 12, 2004

  
BHAVESH M. MEHTA  
SUPERVISOR, PATENT EXAMINER  
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